

FIG. 6

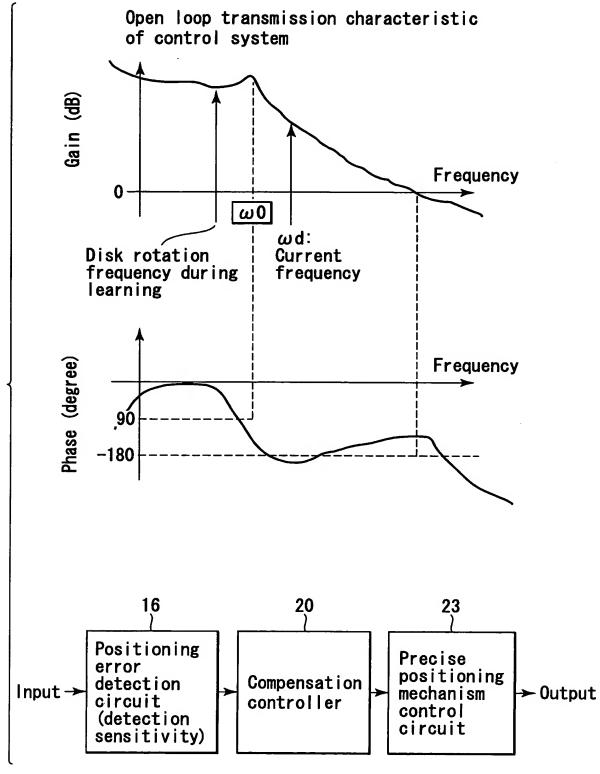
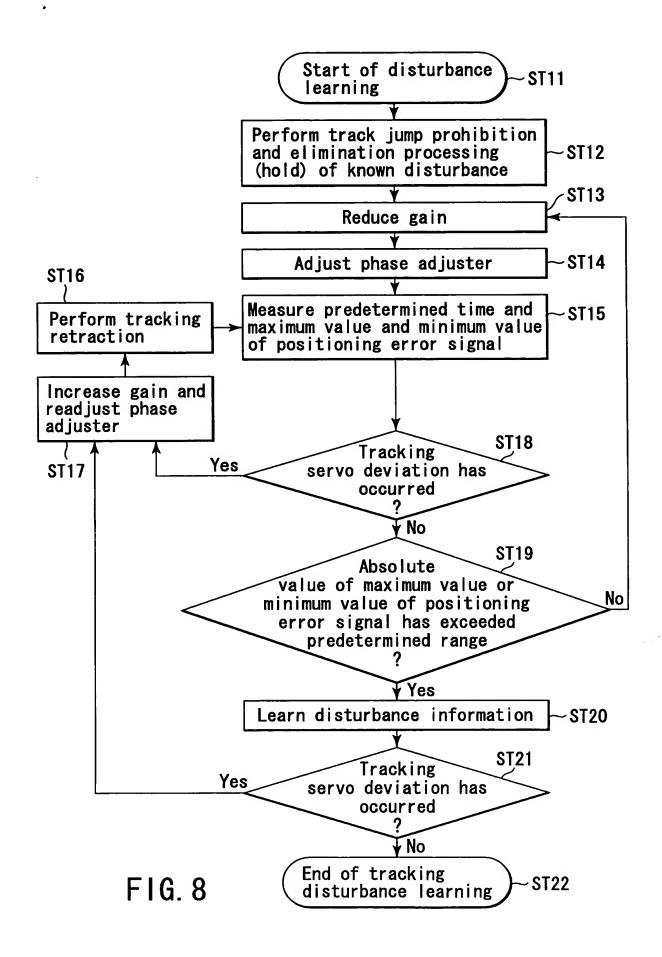
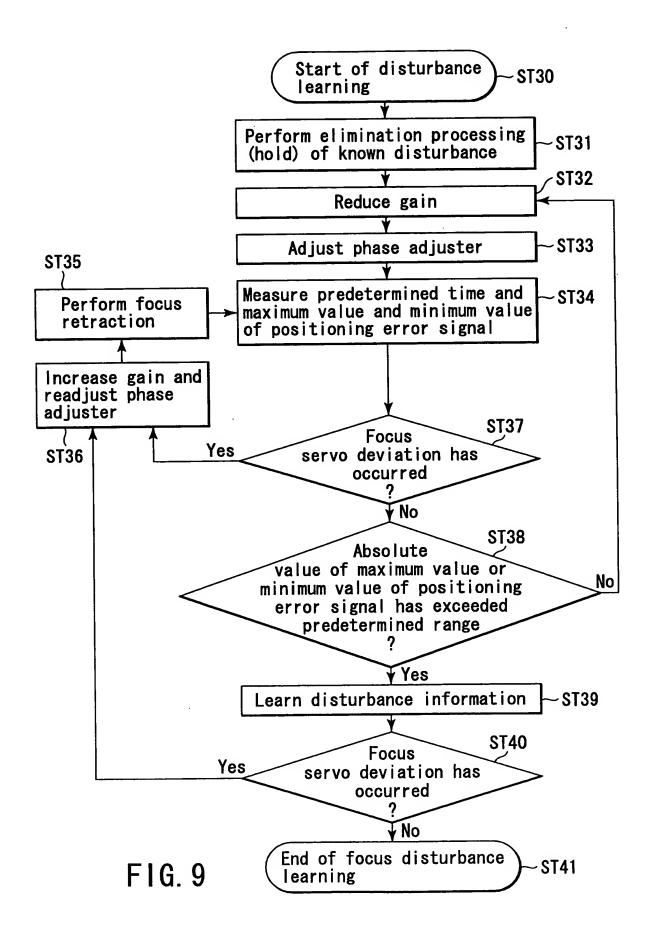


FIG. 7





Open loop transmission characteristic of control system

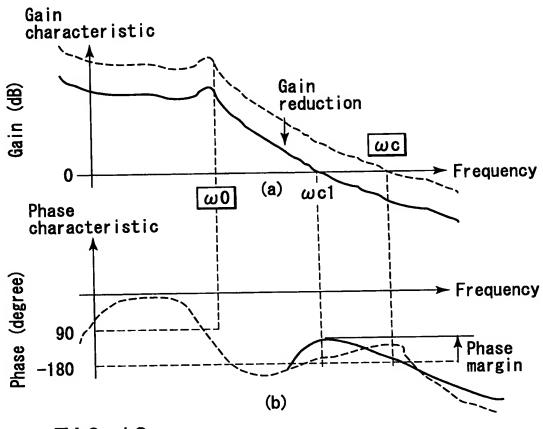
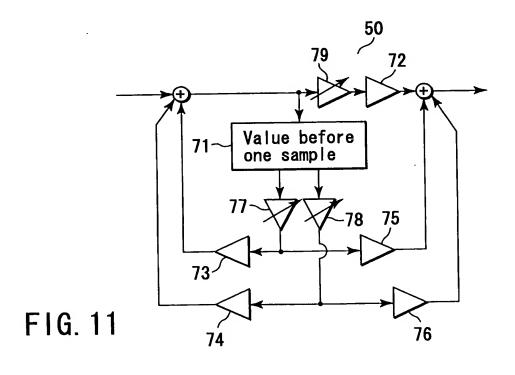
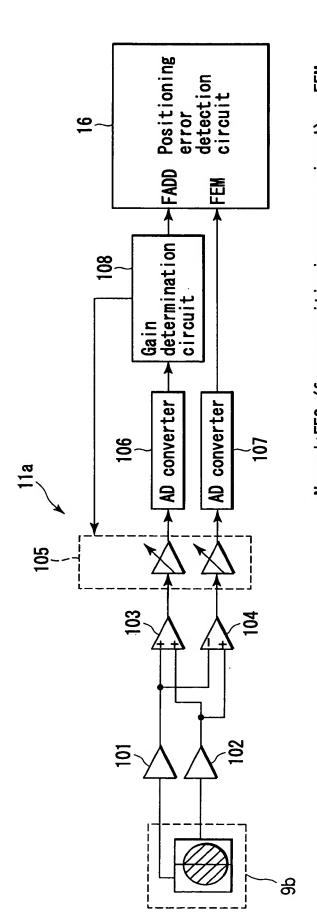


FIG. 10



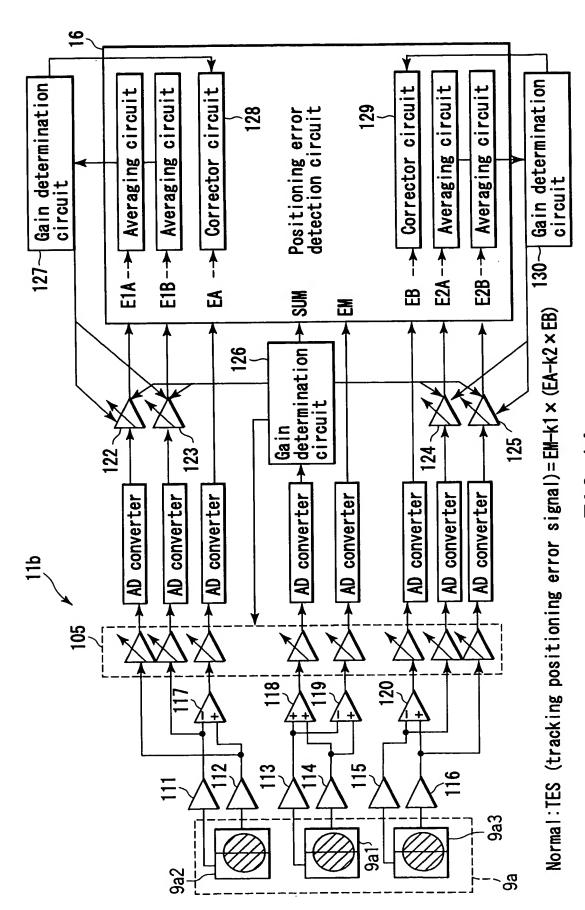
-62 -61 63 -29 9a2 -√9b 9a1 9a3 9a

FIG. 12



Normal:FES (focus positioning error signal) = FEM

F1G. 13



F1G. 14

In the case where gain has increased

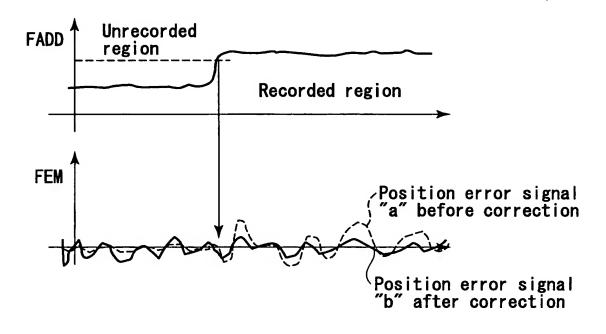
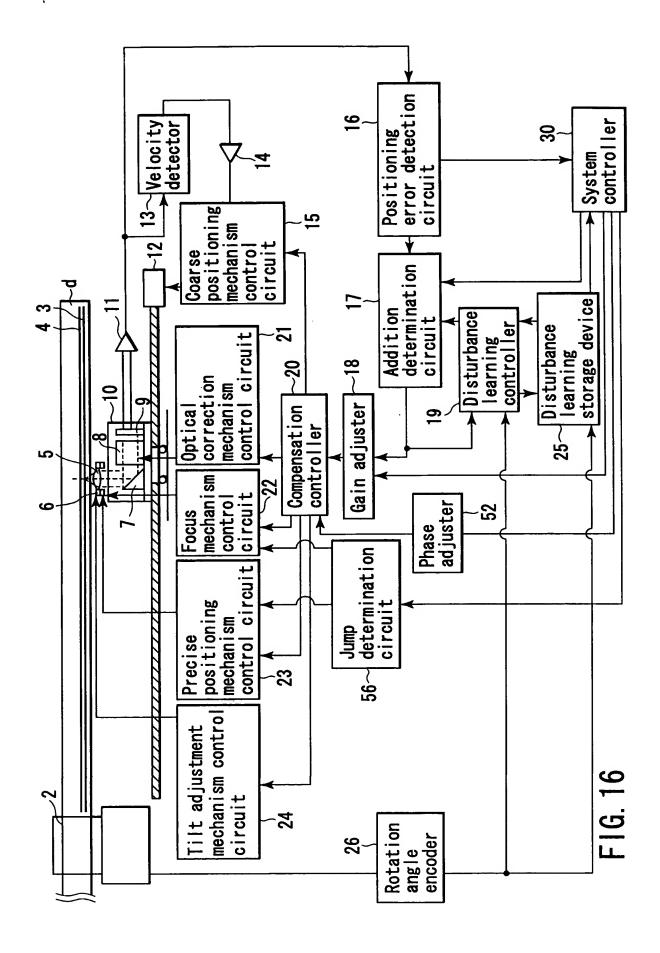


FIG. 15



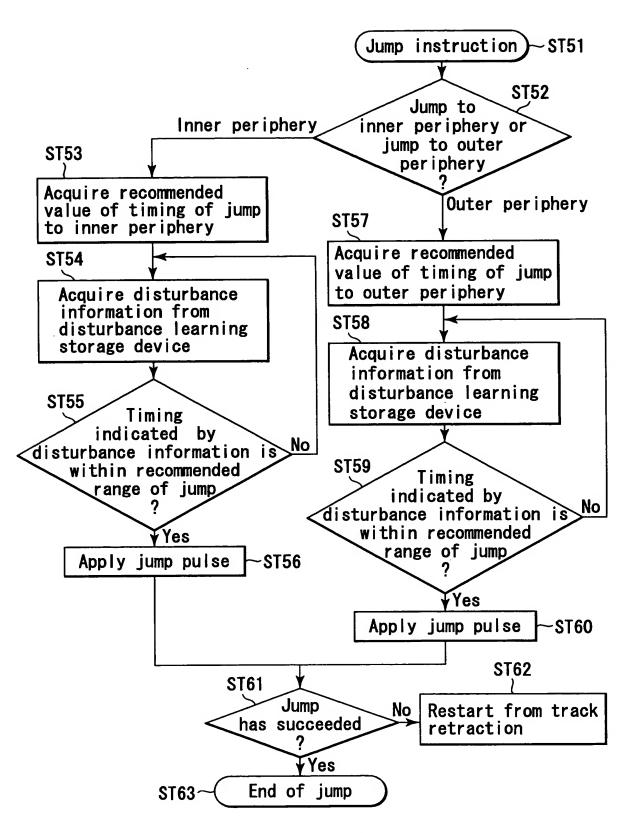


FIG. 17

Jump starting (jump from outer periphery to inner periphery) 72~ Disturbance information Jump applying pulse Innerr periphery side -Outer periphery side Jump starting (jump from inner periphery to outer periphery) Disk rotation cycle Learned disturbance information (in the case of eccettricity) <u>a</u> Disturbance information 1 Jump applying pulse Value converted into voltage or the like 8 A: Recommended jump starting position of

F1G. 18

Jump starting (jump from deeper layer to shallower layer) (h) 74~ Disturbance information Jump applying pulse Proximal side to objective lens Distant side from objective lens Jump starting (jump from shallower layer to deeper Time Disk rotation cycle Learned disturbance information (in the case of side runout) layer) <u>a</u> Disturbance information T3---Jump applying pulse Value converted into voltage or the like C: Recommended position of jump starting

FIG. 19

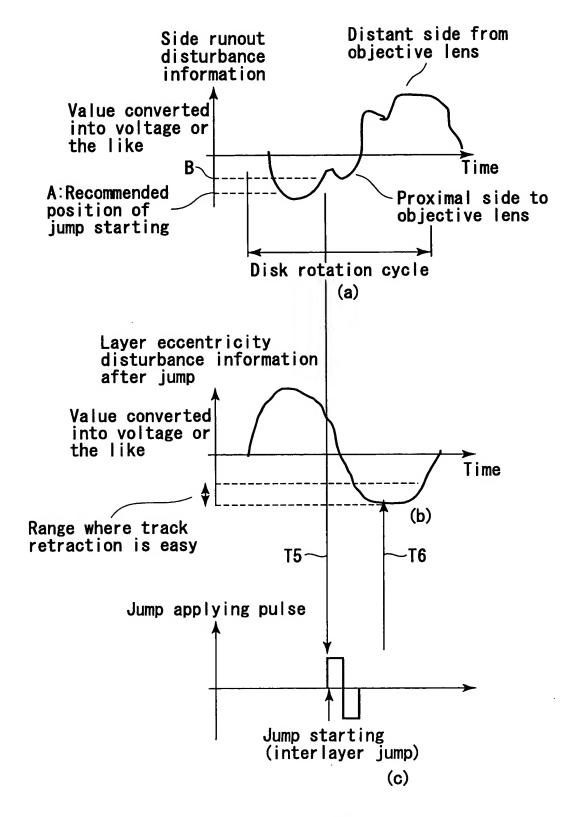


FIG. 20

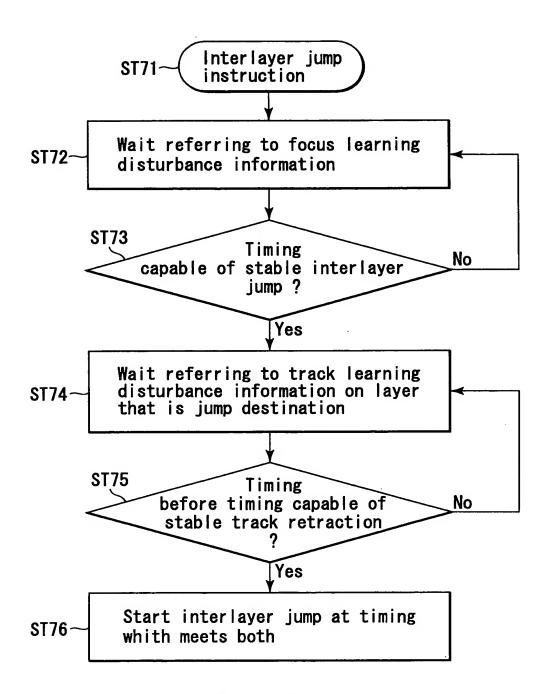
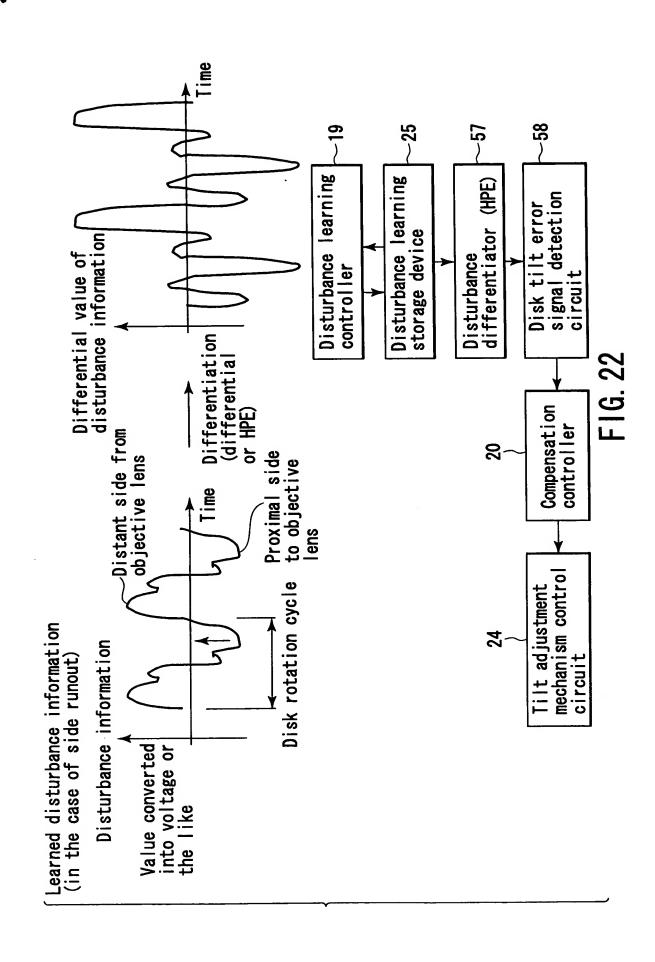


FIG. 21



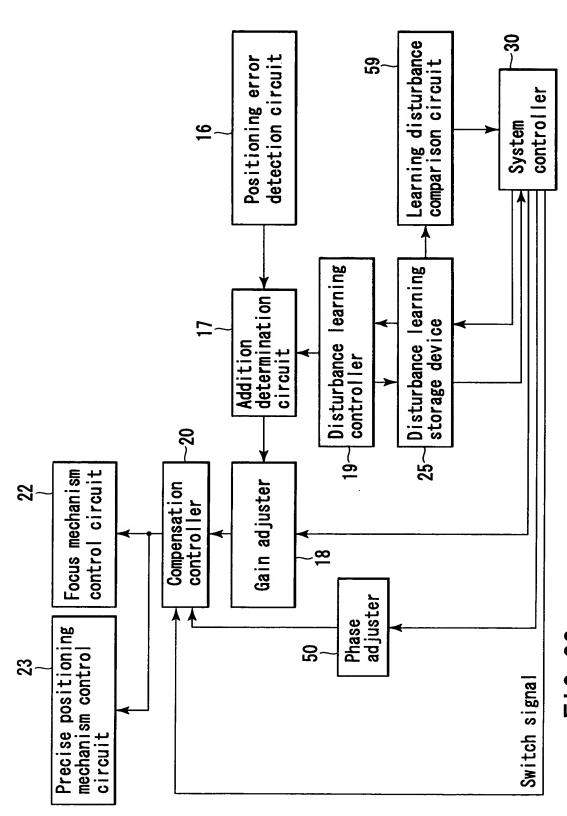
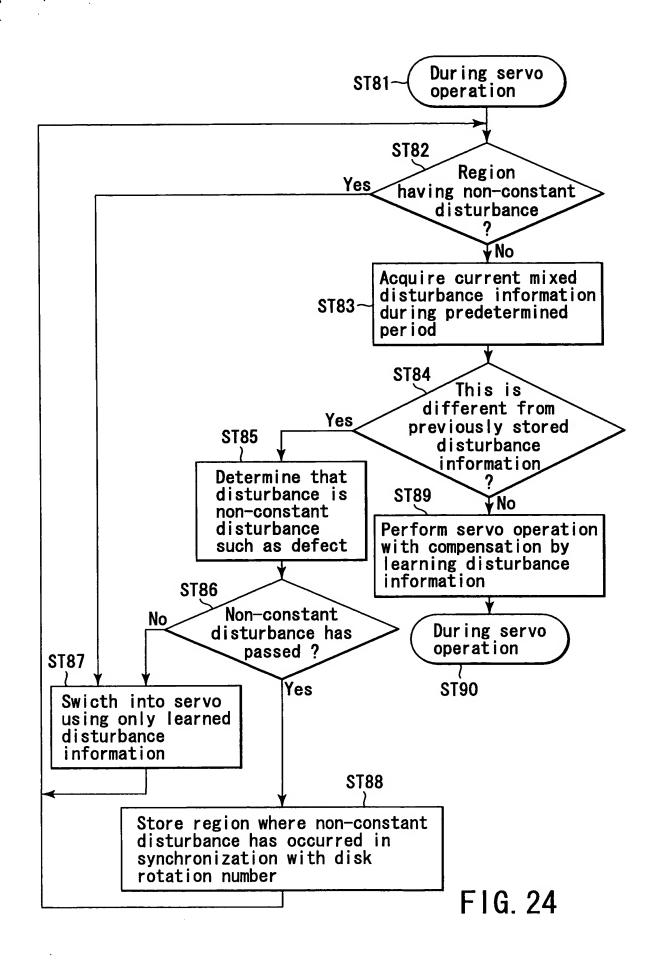


FIG. 23



Open loop transmission characteristic of control system

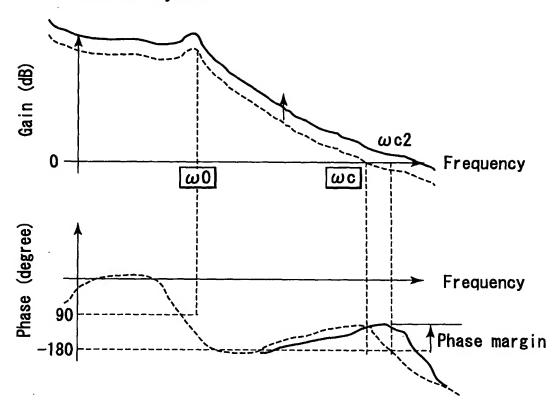


FIG. 25